

## **ATTACHMENT A**

### **REQUIREMENTS FOR AIR SOURCE EMISSION TESTING**

#### **A. PRETEST INFORMATION REQUIREMENTS**

In order to establish uniform requirements and help ensure that proper test methods and procedures are utilized, the information specified below must be submitted to EPA Region 1 in the form of a test protocol. EPA will notify the company of any deficiencies or required changes in the test protocol. Following such notification, the company shall revise and resubmit the test protocol for EPA review and approval.

Except as otherwise provided by EPA, the test protocol shall provide for testing in strict accordance with applicable procedures in 40 C.F.R. Part 60, Appendix A, Standards of Performance for New Stationary Sources, or in 40 C.F.R. Part 61, Appendix B, National Emission Standards for Hazardous Air Pollutants. Any variations in sampling or analytical procedures must be indicated in the test protocol and receive written approval from EPA prior to testing.

The test protocol shall provide the following information, at a minimum:

1. Identification and a brief description of the source to be tested. The description shall include:
  - a. Type of industrial process or combustion facility;
  - b. Type and quantity of raw and finished materials used in the process;
  - c. Description of any cyclical or batch operations which would tend to produce variable emissions with time;
  - d. The site specific operating parameters (to be established during performance testing) used to demonstrate ongoing compliance; and
  - e. Rated capacity of the process.
2. A brief description of the air pollution control equipment associated with the process, including:
  - a. Type of control device;
  - b. Operating parameters;

- c. Rated capacity and efficiency; and
  - d. Ultimate disposal of wastes.
3. Type of pollutant to be sampled (particulate matter, NO<sub>x</sub>, SO<sub>2</sub>, hydrocarbons, etc.).
  4. A description of the emission sampling equipment, including a schematic diagram of the sampling train.
  5. A description of the sampling and analysis procedures. Reference standard methods, if applicable. Indicate any proposed variations and provide justification.
  6. A sketch with dimensions indicating the flow of exhaust gases from the process, through the control equipment and associated ductwork to the stack.
  7. In accordance with 40 C.F.R. Part 60, Appendix A, Method 1:
    - a. An elevation view of the dimensions of the stack configuration indicating the location of the sampling ports and distances to the nearest upstream and downstream flow interferences; and
    - b. A cross-sectional sketch of the stack at the sampling location with dimensions indicating the location of the sampling traverse points.
  8. Estimated flue gas conditions at sampling location, including temperature, moisture content, and velocity pressure.
  9. A description of the process and control equipment operating data to be collected during the sampling period.
  10. Copies of the field data sheet forms to be used during the tests.
  11. Names and titles of personnel who will be performing the tests.
  12. A description of the procedures for maintaining the integrity of the samples collected, including chain of custody and quality control procedures.
  13. Calibration sheets for the dry gas meter, orifice meter, pilot tube, and/or any other equipment that requires calibration.
  14. A list of pre-weighed filters to be used during particulate emission testing, including identification and tare weights.

(Item Nos. 13 and 14 must be submitted prior to actual testing, but need not be included with the pretest information.)

## **B. EMISSION TEST REPORT REQUIREMENTS**

The emission test report must contain all pertinent data concerning the tests, including a description of the process and operating conditions under which the tests were made, the results of the tests, and test procedures. While the exact format of the report will vary depending upon the type and objective of the tests, below is a suggested format containing elements that must be incorporated in the report.

1. Introduction
  - a. Identification, location, and dates of tests;
  - b. Purpose of tests;
  - c. Brief description of source; and
  - d. Name and affiliation of person in charge of tests.
2. Summary of results
  - a. Operating and emission data; and
  - b. Comparison with applicable emission regulations.
3. Source description
  - a. Description of process including operation of emission control equipment;
  - b. Flow sheet (if applicable);
  - c. Type and quantity of raw and finished materials processed during the tests;
  - d. Maximum normal rated capacity of the process; and
  - e. Description of process instrumentation monitored during the test.
4. Sampling and analytical procedures
  - a. Description of sampling train and field procedures;
  - b. Description of recovery and analytical procedures;



- c. Sketch indicating sampling port locations relative to process, control equipment upstream and downstream flow disturbances; and
- d. Sketch or cross-sectional view of stack indicating traverse point locations.

5. Test results and discussion

- a. Detailed tabulation of results including process operating conditions and flue gases conditions;
- b. Discussion of significance of results relative to operating parameters and emission regulations; and
- c. Discussion of any divergences from normal sampling procedures or operating conditions that could have affected the test results.

6. Calculation and data reduction methods

- a. Description of computational methods, including the equation format used to obtain final emissions results from field data; and
- b. Sample calculations from at least one run of each type of test performed.

7. Appendix

- a. Copies of all field data collected during the test, including sampling data sheets and process operating logs;
- a. Copies of all analytical laboratory data;
- b. Calculation sheets or computer input and output data;
- d. Sampling equipment and laboratory calibration data;
- e. Names and titles of personnel and organizations participating in the tests;
- f. Visible emission observations performed during the tests (if required); and
- g. Copies of all chain of custody information.